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DERWENT-WEEK: 199839

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TITLE: DNA sequence encoding BARD1, B123, BE2, BE14, BE31 or BE445 - which as breast cancer antigen, BRCA1, binding proteins are useful to identify patient having or at risk of developing cancer

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PATENT-ASSIGNEE: UNIV TEXAS SYSTEM[TEXA]

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PATENT-FAMILY:

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DESIGNATED-STATES: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI G B GE GH HU ID IL IS JP KE EG KP KP KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NC PL PT RO FC SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZW AT BE CH DE DK EA ES FI FR GB GH GR IE IT KE LS LU MC MW NL OA PT SD SE SZ UG ZW

APPLICATION-DATA:

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C12N015/62 ; C12Q001/68 ; G01N033/566 ; G01N033/68

ABSTRACTED-PUB-NO: WO 9812327A

BASIC-ABSTRACT: Nucleic acid segment comprising an isolated DNA sequence encoding BARD1, B123, BE2, BE14, BE31 or BE445, is new.

Also claimed are:

(1) a nucleic acid segment characterised as:

(a) nucleic acid segment comprising a sequence region consisting of at least 20 contiguous nucleotide that have the same sequence as, or are complementary to, 20 contiguous nucleotide from 1 of 34 nucleic acid sequences given in the specification, or

(b) nucleic acid segment of 20-20000 nucleotide that hybridises to a nucleic acid segment from 1 of the 34 nucleic acid sequences, or their complements, under standard hybridisation conditions;

(2) a recombinant host cell comprising an above described nucleic acid segment;

(3) a composition comprising isolated BARD1, B123, BE2, BE14, BE31 or BE445;

(4) an antibody (Ab) having immunospecificity for BARD1, B123, BE2, BE14, BE31 or BE445, and

(5) a method for identifying a candidate tumour suppressor gene or oncogene, comprising:

(a) obtaining a first DNA segment comprising a candidate gene, which expresses a first fusion protein comprising a transcriptional trans-activating domain attached to the candidate protein encoded by the candidate gene;

(b) obtaining a second DNA segment which expresses a second fusion protein comprising a BRCA1 or BARD RING domain operatively attached to a DNA binding domain that binds a defined nucleic acid sequence;

(c) providing the first and second DNA segments to a eukaryotic host cell that comprises a marker gene operatively positioned downstream of the nucleic acid sequence, and

(d) identifying an eukaryotic host cell that expresses the marker gene, thereby identifying the candidate gene as a candidate tumour suppressor gene or oncogene.

USE - The nucleic acid segments or the host cell can be used in the preparation of the recombinant breast cancer antigen, BRCA1, binding proteins BARD1, B123, BE2, BE14, BE31 or BE445, or a composition for the detection of a BARD1, B123, BE2, BE14, BE31 or BE445 nucleic acid sequence, specifically a wild type BARD1 composition for the detection or purification of BRCA1, useful to identify a patient having, or at risk of developing cancer.

BARD1 can be used in the preparation of an anti-BARD1 antibody, and in the detection and purification of a BRCA1 protein.

BARD1, B123, BE2, BE14, BE31 or BE445 can be used in the identification of a binding protein agonist or antagonist that alters the binding of BARD1, B123, BE2, BE14, BE31 or BE445 to BRCA1 or the biological activity of the BRCA1-BARD1, B123, BE2, BE14, BE31 or BE445 complex.

The Ab can be used to detect BARD1, B123, BE2, BE14, BE31 or BE445, specifically an anti-BARD1 Ab can be used to identify a patient having or at risk of developing cancer (all claimed).

CHOSEN-DRAWING: Dwg.0/6

TITLE-TERMS:

DNA SEQUENCE ENCODE BREAST CANCER ANTIGEN BIND PROTEIN USEFUL IDENTIFY PATIENT RISK DEVELOP CANCER

DERWENT-CLASS: B04 D16 S03

CPI-CODES: B04-E02F; B04-F0100E; B04-G01; B04-N03; B12-K04A1;
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CHEMICAL-CODES:

Chemical Indexing M1 *01*
Fragmentation Code
M423 M710 M750 M903 N102 N135 Q233 V753

Chemical Indexing M1 *02*
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Chemical Indexing M1 *03*
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M423 M710 M781 M903 N102 P831 Q233 V600 V611

Chemical Indexing M6 *04*
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SECONDARY-ACC-NO:

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